

SCIENCE

NEW SERIES. VOLUME LXII

JULY-DECEMBER, 1925

NEW YORK
THE SCIENCE PRESS
1925

THE SCIENCE PRESS
PRINTING COMPANY
LANCASTER, PA.

Gen.
Wahr

CONTENTS AND INDEX

NEW SERIES. VOL. LXII—JULY TO DECEMBER, 1925

THE NAMES OF CONTRIBUTORS ARE PRINTED IN SMALL CAPITALS

ABBOT, C. G., Solar Variation and the Weather, 307, 426
ABEL, J. J., E. M. K. GEILING, G. ALLES and A. RAYMOND, Researches on Insulin, 169
Academy of Sciences, National, Report on Forestry, 5, Abstracts of Papers, 519; North Carolina, B. CUNNINGHAM, 37; Michigan, L. R. DICE, 58; Ohio, W. H. ALEXANDER, 60; Indiana, H. F. DIETZ, 62; Iowa, P. S. HELMICK, 248; Russian, 173, 301
Acid, β -Oxybutyric and Laetic, P. A. LEVENE and H. L. HALLER, 356
ADDINGTON, A. R., Relief Models, 160
Agricultural Exper. Sta., Conn., Semi-centennial, E. W. ALLEN, 392
Agriculture, Funds for Research in, 152
Agronomy, Amer. Soc. of, Elections, 537
Alcohol, Pure Absolute, R. E. LYONS and L. T. SMITH, 224
ALEXANDER, W. H., Ohio Acad. of Sci., 60
Alfalfa, Root Rot of, L. W. DURRELL and W. G. SACKETT, 82
ALLEN, E. W., Research in the Service of the State, 165, Semi-centennial Conn. Agric. Experiment Station, 392
ALMY, F. F., Walter Scott Hendrixson, 197
American Association for the Advancement of Science, Kansas City Meeting, B. E. LIVINGSTON, 48, 428, 469, 538; Annual Rept. of Permanent Secretary, B. E. LIVINGSTON, 467; Sect. Q, Education, 432; Executive Committee, B. E. LIVINGSTON, 443; Science Exhibit, 503; Sect. Zool., G. T. HARGITT, 504; Committee of One Hundred, R. H. TRUE, 559; Financial Rept. Pacific Div., W. W. SARGEANT, 572
Anatomy, Comparative, Terminology in, E. T. ENGLE, 328
ANDERSON, M. S., and S. E. MATTSON, Soil Colloids, 114
ANDERSON, R. J., Amer. Chem. Soc., Div. Biol. Chem., 137
Anthropology, Australian Commonwealth School of, 103
Antiseptis, Internal, V. LEONARD, 408
Anti-vivisection, 128
Aphid, Melon, Primary Food Plant of, E. M. PATCH, 510
Apple Varieties, Propagation of, C. F. SWINGLE, 544
Aquarium, Shedd, 322
Arboretum, National, F. V. COVILLE, 579
Area patricia Sowerby, W. P. WOODRING, 518
Archeology, Amer., Antiquity Phantom in, W. H. HOLMES, 256
ARMSTRONG, H. E., The Faraday Benzene Centenary, 39
ARNOLD, J. W., Effect of Noise on Hearing, 182
Artifacts, Human, in Pleistocene, H. J. COOK, 459
Astronomical Union, W. K. GREEN, 555
Atmometers, Porcelain, Porous, L. J. PESSIN, 85
Atomic Nuclei, Studies of, E. RUTHERFORD, 209
B., M. A., William Albert Hamilton, 214
Bacterial Disease of Tomato Fruits, N. A. BROWN, 12
Bacteriological Note on the Franklin Arctic Relief Expedition of 1848, N. MACL. HARRIS, 57
Bacteriophage, E. S. SANDERSON, 377
Bacterium Tumefaciens, M. LEVINE, 424
Bailey, C. H., Chemistry of Wheat Flour, H. W. WILEY, 511
Barro Colorado Island Laboratory, G. R. BISBY, 111
"Bar Sinister," R. HAWKSHURST, JR., 206
Basin Range Structure, S. TABER, 436
Bauman, J. E., From Trinil to New York, D. S. JORDAN, 113
Bauxite and Siderite, E. F. BURCHARD, 373
Bayliss, W. M., Physiology, R. S. LILLIE, 84
Beaver, Conservation of, by an Indian, H. I. SMITH, 461
Bees, Honey, A. C. BURRILL, 134; C. ROBERTSON, 287
BEHRE, E. H., The "Harmless" Coral Snake, 494
BELLING, J., Monocular Instruments, 54
Benzene, Faraday's Discovery of, 7, Centenary, H. E. ARMSTRONG, 39
Bernouilli's Principle, W. S. FRANKLIN, R. F. DEIMEL, 397
BESSEY, E. A., Amer. Hungarian Foundation Library, 536
BIGELOW, H. B., Oceanic Circulation, 317
Bigelow, H. B. and W. W. Welsh, Fishes of the Gulf of Maine, J. T. NICHOLS, 207
Biological, Sciences, Nat. Research Fellowships in, F. R. LILLIE, 261; Literature in Paris, R. M. MAY, 203; Products, Standardization, Conference on, 321; Abstracts, J. R. SCHRAMM, 533
BISBY, G. R., Barro Colorado Island Laboratory, 111
BOOTHROYD, S. L., Research: A Retrospect, 1
Botanical, Criticism, P. B. SEARS, 371; Works, and Manuscripts, Abstracting, J. C. TH. UPHOF, 545
Botanists, American, Politeness of, J. H. KEMPTON, 158; C. H. FARR, 158
BRANT, I., The "Undertow," 30
BRAY, A. W. L., Distribution of Protozoan Genus, 589
BRENNEMAN, J. L., The Name "N" in eos NT, 222
BREWSTER, E. T., Evolution and the Bible, 159
British Association, 8, 128, 216
BROOKS, S. T., M. E. LARSON and M. H. VAN EPPS, Reaction of Opalinus to Laboratory Media, 289
BROWN, B., Luminous Spiders, 182, 329
BROWN, N. A., Bacterial Disease of Tomato, 12; Rot of Smyrna Fig, 288
BROWN, W. H., Tryparsamide, 350
BROWNE, C. A., History of the Beet, E. O. von Lippmann, 159; Early Chemistry, J. M. Stillman, 245
BRYAN, K., Channel Trenching in Arid Southwest, 338
Burbank, Luther, Plans for Experimental Farm, 238
BURCHARD, E. F., Bauxite and Siderite, 373
BURRILL, A. C., Honey Bees follow Wood Bees, 134
CADY, H. P. and R. TAFT, Electronation, 403
CAHN, A. R., Wisconsin State Park, 559
Calcium, Purpurin Method of localizing, A. B. MACALLUM, 511
CALDIS, P. D., Rot of the Smyrna Fig, 161
Cambridge, Univ. of, Degrees, 174
CAMPBELL, D. H., Wilhelm Hofmeister, 127
CARDIFF, I. D., Evolution and the Bible, 111
Carnegie, Corporation, Grants, 504, 539; Institute of Technology, Research Fellows, 199, Science Exhibit at, 583
Carter, Henry Rose, 320
CASTLE, W. E., Genetics, D. F. Jones, 567; E. W. Sinnott and L. C. Dunn, 568; F. A. E. Crew, 568
Catalytic Action, Oxides of Iron in, L. A. WELO and O. BAUDISCH, 311
Cathode Rays, High Voltage, W. D. COOLIDGE, 441

CAUSEY, D., Protozoa for Class Use, 113
 Chandler, Memorial Meeting, 488; The Teacher and the Chemist, M. I. PUPIN, 499; and the Columbia School of Mines, G. B. PEGRAM, 501
 Chemical, Soc., Amer., Hist. of Chem., L. C. NEWELL, 16; Div. of Chem. Educ., 89; Div. Biol. Chem., R. J. ANDERSON, 137; Los Angeles Meeting, H. E. HOWE, 187; F. C. WITMORE, Div. Org. Chem. and Med. Products, 226; News Service, H. E. HOWE, 238; N. Y. Inter-sectional Meeting, 281; Abstracts, E. J. CRANE, 46; Industries, Exposition of, 260; Industry, German, 151
 Chemistry, Div. of, Bureau of Standards, Chief of, 414; Visiting Professorship at Cornell Univ., 560
 Chemists, Organization in the U. S., C. E. MUNROE, 313
 CHRISTIAN, H. A., Medical Investigation and Education, 551
 Citations, Simplified Literature, E. D. MERRILL, 419
 Civilization, Inst. for History of, P. E. GODDARD, 451
 Clarke, John Mason, C. SCHUCHERT and R. RUEDEMANN, 117, C. D. WALCOTT, 558
 Climatology, Congress of, 302
 Clionidae, The Family, T. D. A. COCKERELL, 567
 COCKERELL, T. D. A., Science and Social Ethics, 236; Fossil Fish of the Family Callichthyidae, 397; Illiteracy in the Colleges, 510; The Family Clionidae, 567
 Cod Liver Oil, Photochemistry of, E. S. WEST and G. H. BISHOP, 86; Ultra-violet Light and the Oxidation of, F. DANIELS and R. J. FOSBINDER, 266
 COLE, E. C., Nephrostomes in the Earthworm, 50
 COLE, W. H., and D. POTTER, Spongilla Lacustris in Massachusetts, 206
 COLEMAN, L. V., Museums, Organized, 148; Small, 458
 Colloid Symposium, Third National, 25
 Colors for Traffic Signals, 75
 CONKLIN, E. G., The Cell, E. B. WILSON, 52; Marine Biological Laboratory, 276
 Continent, Pacific, G. D. HANNA, 491
 COOK, H. J., Human Artifacts in American Pleistocene, 459
 COOLIDGE, W. D., High Voltage Cathode Rays, 441
 Cooperation, Intellectual, Int. Inst. of, 391
 Cosmology, W. D. MACMILLAN, 63, 96, 121
 COVILLE, F. V., A National Arboretum, 579
 COWDRY, E. V., Medical Research in China, 374
 CRAIG, W., The "Undertow," 30
 CRANE, C. R., Marine Biological Laboratory, 271
 CRANE, E. J., Index to Chemical Abstracts, 46
 Crew, F. A. E., Genetics, W. E. CASTLE, 568
 Crown Gall and Nursery Stock, A. J. RIKER and G. W. KEITT, 184
 CUNNINGHAM, B., N. C. Acad. of Sci., 37

DALY, R. A., C. PALACHE and K. F. MATHER, Jay Backus Woodworth, 450
 DANIELS, F., and R. J. FOSBINDER, Ultra-violet Light and the Oxidation of Cod Liver Oil, 266
 Darling, Samuel Taylor, R. W. HEGNER, 23
 DAVIS, W., Scientific Men and the Defense of Mr. Scopes, 130
 DAVIS, W. M., "Undertow," 33; The Stewart Bank, 401
 DE BAUFRE, W. L., Mechanical Power, 381
 DEIMEL, R. F., Bernouilli's Principle, 397
 DELAUNAY, L., S-chromosomes, 15
 DEMAREE, R. G., Time Measurements, 245
 DENSMORE, F., Music of the American Indians, 565
 Depressor Principle, Separation of, from the Hepatic Tissue, A. A. JAMES, N. B. LAUGHTON and A. B. MACALLUM, 181
 DEXTER, J. S., Anti-evolution Propaganda in Ga., 399
 DICE, L. R., Michigan Academy of Science, 58
 DICKSON, B. T., Tobacco and Tomato Mosaic, 398
 DIETZ, H. F., Indiana Academy of Science, 62
 Digestion in Paramecia, P. G. SHIPLEY and C. F. DE GARIS, 266
 Discussion and Correspondence, 12, 30, 50, 81, 108, 133, 157, 180, 203, 220, 243, 265, 286, 307, 326, 350, 371, 397, 418, 436, 458, 491, 509, 543, 565, 587
 Disease, H. B. ENGLISH, 13
 Diseases of the Ruffed Grouse, A. O. GROSS, 55
 Distemper, Canine, Etiology of, R. G. GREEN, 133
 Doctorates conferred by American Universities, C. HULL and C. J. WEST, 578
 DUNN, E. R., The "Harmless" Coral Snake, 308
 DURAND, W. F., The Engineer and Civilization, 525
 DURRELL, L. W., and W. G. SACKETT, Root Rot of Alfalfa, 82
 Earth, Constitution of the, H. LAMB, 229
 Earthquakes, Superficial Factors in, R. W. SAYLES, 299
 Earthworm, Nephrostomes in, E. C. COLE, 50
 Earthworms, G. E. GATES, 13
 ECKART, C., Conservation of Momentum, 265
 Eclipse, Total, 1926, R. W. MARRIOTT, 303
 Edwards, Vinal Nye, Memorial to, 365
 Eggs, supposed to be Luminous, A. H. GODBEY, 460
 Electrical, Science, Law, Description and Hypothesis, M. I. PUPIN, 17; Engineers, Amer. Inst., 24, 175; Engineering at Mass. Inst. Tech., 345
 Electrochemical Soc., Amer., Meeting, 199
 Electrode, Hydrogen, C. P. SIDERIS, 331
 Electronation, H. P. CADY and R. TAFT, 403
 Energy, Conservation of, Bernouilli's Principle as, E. H. KENNARD, 243
 Engineer and Civilization, W. F. DURAND, 525
 Engineering Soc., Illuminating, 239
 Engineers, Mechanical, Amer. Soc. of, 432
 ENGLE, E. T., Terminology in Comparative Anatomy, 328
 ENGLISH, H. B., Disease, 13
 Enzyme, Fungus, Nutritional Study of, G. W. HERVEY, 247
 Eugenics, International Commission of, 259
 Evolution, and Education, H. F. OSBORN, 43, 52; and the Bible, I. D. CARDIFF, 111; A. F. WOODS, 159; E. T. BREWSTER, 159; in the Physical World, G. F. HULL, 180; Dr. Riley on, R. R. HUESTIS, 220; anti, Propagation in Georgia, J. S. DEXTER, 399
 EXNER, F. M., Dynamische Meteorologie, A. MCADIE, 399
 Expedition, to the Revillagigedo Islands, M. E. McLELLAN, 171; Asiatic, of Amer. Museum of Natural History, 198; Paleontological, of Field Museum to Argentina, E. S. RIGGS, 215; Norwegian, to Spitzbergen and Bear Island, 486
 Expeditions, Russian Scientific, 237
 F., H. L., American Geology, G. P. MERRILL, 421
 Faraday, Discovery of Benzene, 7; Centenary, H. E. ARMSTRONG, 39
 FAIR, C. H., Politeness of American Botanists, 158
 Fauna Hawaianensis, H. E. GREGORY, 52
 FINDLAY, A., The Twilight Zone of Matter, 192; Appeal of Science to the Community, 357
 Fish, Fossil, of the Family Callichthyidae, T. D. A. COCKERELL, 397
 FORBES, A., Analyzed Sound, 204
 Forestry, Report of National Academy on, 5; International Congress, 216
 FRANKLIN, W. S., Bernouilli's Principle, 397; Physics, M. PLANCK, 438
 Fungi, Virulence in, C. D. LARUE, 205
 FUNK, C., Nomenclature of the Vitamines, 157
 GAGER, C. S., André Parmentier, 461
 GARRISON, F. H., Der Pathologisch-Anatomischen Abbildung, E. Goldschmid, 545
 Gaseous Catalysis, S. C. LIND and D. C. BARDWELL, 593
 Gastric Transplantation, M. H. POWELSON, 247
 GATES, G. E., Earthworms, 13

AND
133,
371,
ULL
alfa,
299
esis,
75;
. H.
328
EY,
and
. T.
ULL,
ga-
399
Mc-
ral
to
itz-
E.
real
A.
na-
es,
b-
93

Geological, Conference in Western Texas, 413; Excursion of N. Y. Colleges, 431
Geologists, Assoc. Amer. State, M. M. LEIGHTON, 452
Geology, Orton Memorial Library of, 47
German Museum of Applied Science, 74
Glacial Controversy, M. MANSON, 212
Glaciation, Tertiary, C. J. HARES, 308
GODBEY, A. H., Eggs supposed to be Luminous, 460
GODDARD, P. E., Civilization, 451
Goldschmid, E., Der Pathologisch-Anatomischen Abbildung, F. H. GARRISON, 545
GORTNER, R. A. and W. F. HOFFMAN, Binding of Acid and Alkali by Proteins, 464
Grafts, Nursery, R. H. ROBERTS, 356
Gray, Asa, B. L. ROBINSON, 45; Prof. Robinson's Tribute to, H. W. WILEY, 222
GREEN, R. G., Etiology of Canine Distemper, 133
GREEN, W. K., Astronomical Union, 555
Green River Formation, N. E. A. HINDS, 34
GREGORY, H. E., Fauna Hawaianensis, 52
GRINNELL, J., Wild Life Preservation, 437
GROSS, A. O., Diseases of the Ruffed Grouse, 55
GUNDERSEN, A., International List of Genera of Cultivated Plants, 589
Haas, A., Physics, J. R. NEILSEN, 495
HALL, M. C., Brayton Howard Ransom, 319
Hamilton, William Albert, M. A. B., 214
HANCE, R. T., Combined Culture Medium and Indicator for Paramoecium, 351
HANNA, G. D., A Pacific Continent, 491
HARES, C. J., Tertiary Glaciation, 308
HARGITT, G. T., Sect. of Zool. of Amer. Assoc., at Kansas City, 504
HARRIS, N. MACL., Bacteriological Note on the Franklin Arctic Relief Expedition of 1848, 57
HARTSOUGH, R. C., A Duplex Vacuum Gauge, 160
Harvard University, Gifts to, 75; Medical School Dormitories, 174; Awards from Milton Fund, 346
HAWKSHURST, R., JR., "Bar Sinister," 206
HAZELTINE, L. A., The Name "N" in Cos NT, 134; Campbell's Definitive Units, 244
Health, Activities of the Government, J. A. TOBEY, 448; Public, C. E. A. WINSLOW, 335
HEILBRUNN, L. V., Interpretation of Biological Processes, 268
HELMICK, P. S., Iowa Academy of Science, 248
HEMINGER, I. M., Sex Changes in Birds, 398
Hendrixson, Walter Scott, F. R. ALMY, 197
Henry, Joseph, C. D. WALCOTT, 405
Heraldry, Error in, H. LEFFMAN, 33
HERVEY, G. W., Nutritional Study upon a Fungus Enzyme, 247
HIBBARD, P. L., Plants on a Culture Solution, 515
HILTON, W. A., Nervous System of Insects, 372
HINDS, N. E. A., The Green River Formation, 34
HITCHCOCK, A. S., Success in Science, 141
HITE, M. P., The "Undertow," 31
HOBBS, W. H., The Index Generalis, 373
Hofmeister, Wilhelm, D. H. CAMPBELL, 127
HOLMES, W. H., The Antiquity Phantom, 256
Hopkins Marine Station, 76
HOWARD, L. O., Polyembryony, 308; Walter David Hunter, 430
HOWE, H. E., Regelation and Low Temperatures, 15; Amer. Chem. Soc., Los Angeles, Meeting, 187; News Service, 238
HOWELL, B. F., Gilbert Van Ingen, 101
HUESTIS, R. R., Dr. Riley on Evolution, 220
HUGHES, J. S., R. W. TITUS and J. M. MOORE, Ultra-violet Light and Anti-rachitic Vitamin in the Hen's Eggs, 492
HULL, C., and C. J. WEST, Doctorates conferred by American Universities, 578
HULL, G. F., Evolution in the Physical World, 180
HULSE, E. P., Luminous Spiders, 329
Hunter, Walter David, L. O. HOWARD, 430
Hydrogen, Atomic, Flames of, I. LANGMUIR, 463
Hydrogen-Magnesium Halides, R. M. PICKENS, 226
Hydroid of Craspedacusta Ryperi in Ky., F. PAYNE, 421
Hygiene, Mental, Lectures, 453
Illiteracy in the Colleges, T. D. A. COCKERELL, 510
Immunity, Specific, of the Tissues, E. C. PRENTISS, 91; Tuberculosis, D. RIESMAN, 351
Immunization, Experimental, H. SEWALL, 293
Index Generalis, W. H. HOBBS, 373
Indiana Academy of Science, H. F. DIETZ, 62
Indians, American, Music of, F. DENSMORE, 565
Injection Apparatus, Air Pressure, E. L. LAZIER, 310
Insulin, J. J. ABEL, E. M. K. GEILING, G. ALLES and A. RAYMOND, 169; Inactivation of, J. R. MURLIN, 332
Intellectual Leadership of the *Times*, the *Post* and the *Transcript*, 223
International Physical Union, 129
Ionized Organic Gases, S. C. LIND and D. C. BARDWELL, 422
Ions, Hydrophilic Effects of, D. T. MACDOUGAL and B. L. CLARKE, 136; Positive, New Source of, C. H. KUNSMAN, 269
Iowa Academy of Science, P. S. HELMICK, 248
JACKSON, R. C., Mackerel and Planktonic Organisms, 544
JAMES, A. A., N. B. LAUGHTON and A. B. MACALLUM, Separation of the Depressor Principle from the Hepatic Tissue, 181
JEFFREY, E. C., Mutation Hypothesis and Drosophila, 3; Kohlenpetrographie, R. Potonié, 112
JOFFE, J. S., and H. C. MCLEAN, Suction of Soils, 548
John Scott Medal Fund, 99
Johnson, D., N. E. Acadian Shore Line, K. F. MATHER, 591
Jones, D. F., Genetics, W. E. CASTLE, 567
JORDAN, D. S., The Art of Pluviculture, 81; From Trinil to New York, J. E. Bauman, 113; Allan Riverston McCulloch, 301; Underworld of Science, 326; Hodmen of Science, 425
KEEN, W. W., "The Scientific Accuracy of the Sacred Scriptures," 543
KELLOGG, V., English Support of Science, 412
KEMPTON, J. H., Politeness of American Botanists, 158
KENNARD, E. H., Bernouilli's Principle as Conservation of Energy, 243
Kiær, J., Fauna of Norway, G. G. SIMPSON, 288
Kidney Function, H. L. WHITE and F. O. SCHMITT, 334
KLINE, J. J., An Unusual Meteor, 352
KLOOSTER, H. S. VAN, Nobel Prizes, 259
KNIGHT, A. P., Distribution of Trout Fry, 590
KNUDSEN, V. O., Hearing in Presence of Noise, 109
KUGELMASS, I. N., and I. MCQUARRIE, Changes in Photographic Plate by Antirachitic Substances, 87
KUNSMAN, C. H., New Source of Positive Ions, 269
KUSHNER, I., and A. S. CHAIKELIS, Action of Oxidases by Bacteria, 36
Lacustris, Spongilla, W. H. COLE and D. POTTER, 206
LAIRD, D. A., and T. MCCLUMPHA, Sex Differences, 292
LAMB, H., Constitution of the Earth, 229
LAMB, M. U., W. H. SNELL and N. O. HOWARD, Moisture Contents of Wood and its Decay, 377
LANGMUIR, I., Flames of Atomic Hydrogen, 463
LARSON, M. E., M. H. VAN EPPS and S. T. BROOKS, Reaction of Opalinus to Laboratory Media, 289
LARUE, C. D., Virulence in Fungi, 205
LAZIER, E. L., Air Pressure Injection Apparatus, 310
LEAKE, C. D., Cooperative Research, 251
LEERSUM, E. C. VAN, Nomenclature of Vitamines, 494
LEFFMAN, H., Error in Heraldry, 33
LEIGHTON, M. M., Assoc. Amer. State Geologists, 452

LEONARD, V., Internal Antisepsis, 408
 LEVENE, P. A., and H. L. HALLER, β -Oxybutyric and Lactic Acid, 356; and B. J. C. VAN DER HOEVEN, Growth-promoting Principle of Yeast, 594
 LEVINE, M., Bacterium Tumefaciens, 424
 Library, American-Hungarian Foundation, E. A. BESSEY, 536
 LILLIE, F. R., Nat. Research Fellowships, 261; Address of the Director of the Marine Biological Laboratory, 272
 LILLIE, R. S., Physiology, W. M. Bayliss, 84
 LIND, S. C., and D. C. BARDWELL, Ionized Organic Gases, 422; Gaseous Catalysis, 593
 LINTON, E., O. C. March and Pithecanthropus, 51
 Lippmann, E. O. von, History of the Beet, C. A. BROWNE, 159
 LITTLE, N. C., Text-books of Physics, 286
 LIVINGSTON, B. E., Kansas City Meeting of Amer. Assoc., 48, 428, 469, 503, 538; Annual Report, 467; Executive Committee, 443
 Loess, The Definition of, J. L. TILTON, 83
 LOEVENHART, A. S., Tryparsamide, 587
 LOOMIS, F. B., The Florida Man, 436
 Luminescence in Sponges, Y. K. OKADA, 566
 LUSK, G., Telephone Communication, C. A. Wright and A. F. Puchstein, 329
 LYONS, R. E., and L. T. SMITH, Pure Absolute Alcohol, 224
 MCADIE, A., Exner's Dynamische Meteorologie, 399; Smithsonian Weather Forecasts, 418; Climates of the U. S., R. DeC. Ward, 462
 MACALLUM, A. B., Purpurin Method of localizing Calcium, 511
 McCulloch, Allan Riverston, D. S. JORDAN, 301
 MACDOUGAL, D. T., and B. L. CLARKE, Hydrophilic Effect of Ions on Agar and Protoplasmic Components, 136
 MACDOUGALL, F. H., Surface Tension, 290
 Mackenzie Park as a Field for Survey, Exploration, Literature and Art, H. I. SMITH, 211
 Mackerel and Planktonic Organisms, R. C. JACKSON, 544
 MCKIBBEN, P. S., Royal Society of Canada, 162
 MCLELLAN, M. E., Expedition to the Revillagigedo Islands, 171
 MACMILLAN, W. D., Cosmology, 63, 96, 121
 Madagascar, Field Museum Expedition to, 366
 Magnetic Declination, L. S. TAYLOR, 516
 Males, Diploid, in Hymenoptera, P. W. WHITING and A. R. WHITING, 437
 Man, Florida, F. B. LOOMIS, 436
 MANSON, M., The Glacial Controversy, 212
 Marine Biological Laboratory, New Building, 26; C. R. CRANE, 271; F. R. LILLIE, 272; E. B. WILSON, 275; E. G. CONKLIN, 276
 MARQUETTE, W., Ultra-violet Microscope, 135
 MARRIOTT, R. W., Total Solar Eclipse of 1926, 303
 Mathematical Aspects of Cosmology, W. D. MACMILLAN, 63, 96, 121; Soc., Amer., R. G. D. RICHARDSON, 379, 550
 Mathematics, the History of, Arithmetization in, G. A. MILLER, 328
 MATHER, K. F., N. E. Acadian Shore Line, D. Johnson, 591
 Matter, Twilight Zone of, A. FINDLAY, 192
 MAY, R. M., Biological Literature in Paris, 203
 Measurements, Time, R. G. DEMAREE, 245
 Media, Laboratory Reaction of Opalinas to, M. E. LARSON, M. H. VAN EPPS and S. T. BROOKS, 289
 Medical, Center, Columbia-Presbyterian, 321; Lane Lectures at Stanford, 413; Investigation and Education, H. A. CHRISTIAN, 551
 Medicine, Well-trained Practitioners, E. H. OCHSNER, 573
 MELTON, F. A., Continents and Oceans, A. Wegener, 14
 MERRILL, E. D., Simplified Literature Citations, 419
 Merrill, G. P., American Geology, H. L. F., 421
 METCALF, H., Free Living Nematodes, 245
 Meteor, Unusual, J. J. KLINE, 352
 Metric Association, H. RICHARDS, 164
 Michigan Academy of Science, L. R. DICE, 58
 Microchemical Test for Calcium, Macallum's, M. M. SAMPSON, 400
 Micro-organisms, Reproduction, C. H. WERKMAN, 115
 Microscope, Ultra-violet, W. MARQUETTE, 135
 MILLER, G. A., Arithmetization in the History of Mathematics, 328
 MILLIKAN, R. A., High Frequency Rays of Cosmic Origin, 445
 "Millikan Rays," 461
 Momentum, Conservation of, C. ECKART, 265
 Monocular Instruments, J. BELLING, 54
 Mosaic, Tobacco, M. MULVANIA, 37; and Tomato, B. T. DICKSON, 398
 MUNROE, C. E., Organization of Chemists in U. S., 313
 MURLIN, J. R., Inactivation of Insulin by Glucose, 332
 Museums, Organized, L. V. COLEMAN, 148; Small, L. V. COLEMAN, 458
 Music of the American Indians, F. DENSMORE, 565
 Mutation Hypothesis and Drosophila, E. C. JEFFREY, 3
 Name N in Cos NT, W. W. SLEATOR, 134; L. A. HAZELTINE, 134; J. L. BRENNEMAN, 222
 National Academy of Sciences, Report on Forestry, 5; Abstracts of Papers, 519, Funds for, 582
 Natural History, Peking Society of, 452
 Necrosis, Potato, E. S. SCHULTZ, 571
 Nematodes, Free Living, M. METCALF, 245
 Nervous System of Insects, W. A. HILTON, 372
 NEWELL, L. C., Amer. Chem. Soc., 16
 Nichols, Harold William, 536
 NICHOLS, J. T., Fishes of the Gulf of Maine, H. B. Bigelow and W. W. Welsh, 207
 NIELSEN, J. R., Physics, A. Haas, 495
 Nobel Prizes, 487; H. S. VAN KLOOSTER, 259
 Noise, Hearing in Presence of, V. O. KNUDSEN, 109; Effect on Hearing, J. W. ARNOLD, 182
 NORRIS, J. F., Address of President of the Amer. Chem. Soc., 189
 Norris, J. F., Testimonial, 505
 North Carolina, Academy of Science, B. CUNNINGHAM, 37
 Nuttall, Thomas, W. H. POWERS, 389
 Oceanic Circulation, H. B. BIGELOW, 317
 OCHSNER, E. H., Practitioners of Medicine, 573
 Ohio Academy of Science, W. H. ALEXANDER, 60
 Oil Well, California, 366
 OKADA, Y. K., Luminescence in Sponges, 566
 OLITSKY, P., Tobacco and Tomato Mosaic Disease, 442
 Optical Society of America, 322
 OSBORN, H. F., Evolution and Education, 43
 Osler Memorial Volume, 558
 Oxidases, Retardation of the Action of by Bacteria, I. KUSHNER and A. S. CHAIKELIS, 36
 Pan-Pacific, Science Congress, 73; Research Inst., 581
 Paramoecium, Combined Culture Medium and Indicator for, R. T. HANCE, 351
 Parasitologists, Amer. Soc. of, First Meeting, 391
 Park, Wisconsin State, A. R. CAHN, 559
 Parmentier, André, C. S. GAGER, 461
 Parsons, Francis Henry, H. W. PIERSON, 344
 PATCH, E. M., Primary Foodplant of Melon Aphid, 510
 Paul to the Thessalonians, C. D. SNYDER, 33
 PAYNE, F., Hydroid of Craspedacusta Ryperi, 421
 PEGRAM, G. B., Chandler and the Columbia School of Mines, 501
 PIERSON, M. B., N. California, Conference on Science Teaching, 185
 PESSIN, L. J., Porous Porcelain Atmometers, 85

Pharmaceutical, Conference, International, 151; Research, Nat. Conference on, 260

PHILLIPS, E. F., The Honey Bee, R. E. Snodgrass, 309

Photographic Plate, Changes in, by Antirachitic Substances, I. N. KUGELMASS and I. MCQUARRIE, 87

Photography, Centenary of, 24

Physics, Text-books of, N. C. LITTLE, 286

Physiological Activity of Onium Compounds, Basis for, R. R. RENSHAW, 384

Phytogeographic Excursion, Int., O. RABER, 344

PICKENS, R. M., Hydrogen-Magnesium Halides, 226

PIERSON, H. W., Francis Henry Parsons, 344

Pithecanthropus and O. C. Marsh, E. LINTON, 51

Planck, M., Survey of Physics, W. S. FRANKLIN, 438

Plant Sciences, International Congress of, 412

Plants, Effects on a Culture Solution, P. L. HIBBARD, 515; Cultivated, List of, A. GUNDERSEN, 589

Pluviculture, The Art of, D. S. JORDAN, 81

Polyembryony, New Case of, L. O. HOWARD, 308

Potonié, R., Kohlenpetrographie, E. C. JEFFREY, 112

POWELSON, M. H., Gastric Transplantation, 247

Power, World, Conference, 216; Mechanical, W. L. DE BAUFRE, 381

POWERS, W. H., Thomas Nuttall, 389

PRENTISS, E. C., Specific Immunity of the Tissues, 91

Proteins, binding of Acid and Alkali by, R. A. GORTNER and W. F. HOFFMAN, 464

Protozoa, for Class Use, D. CAUSEY, 113

Protozoan Genus *Cryptochilum* Maupas, A. W. L. BRAY, 589

Psychological Assoc., Western, 163

Public Health Assoc., Amer., 198

PUPIN, M. I., Electrical Science, Law, Description and Hypothesis, 17; Chandler: The Teacher and the Chemist, 499

Quartz, High, Structure of, R. W. G. WYCKOFF, 496

QUIRKE, T. T., The Size of Sea Waves, 108

Quotations, 52, 83, 112, 206, 223, 267, 461, 494

RABER, O., Phytogeographical Excursion, 344

Radio Waves, Short, A. H. TAYLOR and E. O. HULBURT, 183; Talks from Harvard College Observatory, 431

Ramsay Memorial Fellowships, 152

Ransom, Brayton Howard, M. C. HALL, 319

Rays, High Frequency, of Cosmic Origin, R. A. MILLIKAN, 445

Reason, What is it for?, 83

REDFIELD, A. C., Reynold Albrecht Spaeth, 363

Regelation and Low Temperatures, H. E. HOWE, 15

Relativity, The Theory of, W. F. G. SWANN, 145

Relief Models, A. R. ADDINGTON, 160

RENSHAW, R. R., The Basis for the Physiological Activity of Certain Onium Compounds, 384

Reproduction of the Albino Rat, W. D. SALMON, 420

Reptile and Amphibian Life at Am. Mus. Nat. Hist., 345

Research, S. L. BOOTHROYD, 1; International Council of, C. E. ST. JOHN, 104; in the Service of the State, E. W. ALLEN, 165; and Industry in Gt. Britain, 197; Cooperative, C. D. LEAKE, 251; Medical, in China, E. V. COWDRY, 374

Reservation, Wild Life, on Mississippi River, 280

RICHARDS, H., Metric Association, 164

RICHARDSON, R. G. D., Amer. Math. Soc., 379, 550

RIESMAN, D., Immunity to Tuberculosis, 351

RIGGS, E. S., Paleontological Expedition to Argentina, 215

RIKER, A. J., and G. W. KEITT, Crown Gall and Nursery Stock, 184

ROBERTS, R. H., Nursery Grafts, 356

ROBERTSON, C., Honey Bees and Perforated Flowers, 287

ROBINSON, B. L., Asa Gray, 45

Rockefeller, Foundation, Expenditures, 8; Institute, Appointments at, 25

ROGERS, L. A., American Typeculture Collection, 267

ROLLEFSON, G. K., and E. J. POTI, Soft X-Rays, 497

ROSEN, H. R., Flagella of the Typhoid Fever Germ, 498

Royal Institution, Honorary Members, 47; Society of Canada, P. S. MCKIBBEN, 162

RUARK, A. E., Current Voltage Curve, 182

RUHRAH, J., Seelig's History of Medicine, 223

Russian Acad. of Sciences, 173, 301

RUTHERFORD, E., Studies of Atomic Nuclei, 209

ST. JOHN, C. E., International Council of Research, 104

SALMON, W. D., Reproduction of the Albino Rat, 420

SAMPSON, M. M., Macallum's Test for Calcium, 400

Sanctuary for Wild Animals in South Africa, 151

SANDERSON, E. S., Bacteriophage, 377

SARGEANT, W. W., Financial Rept. of Pacific Div. of Amer. Assoc., 572

SATINA, S., and M. DEMEREC, Identification of the Sexes, 225

SAYLES, R. W., Factors in Earthquakes, 299

SCHMITT, F. O., and H. L. WHITE, Kidney Function in *Necturus Maculosus*, 334

SCHRAMM, J. R., Biological Abstracts, 533

S-chromosomes, L. DELAUNAY, 15

SCHUCHERT, C., and R. RUEDEMANN, John Mason Clarke, 117

SCHULTZ, E. S., Potato Necrosis, 571

Science, Front Page, 112; Success in, A. S. HITCHCOCK, 141; Teaching, N. California Conference on, M. B. PEIRSON, 185; League of America, M. SHIPLEY, 221; and Social Ethics, T. D. A. COCKERELL, 236; at Southampton, 267; News Conference, 302; Underworld of, D. S. JORDAN, 326; Appeal to Community, A. FINDLAY, 357; English Support of, V. KELLOGG, 412; Hodmen of, D. S. JORDAN, 425; International Cooperation in, 494

Scientific, Events, 7, 24, 46, 74, 103, 128, 151, 173, 197, 215, 237, 259, 280, 301, 321, 344, 365, 391, 412, 430, 451, 486, 503, 536, 558, 581; Notes and News, 8, 26, 48, 76, 105, 130, 153, 176, 200, 217, 240, 261, 282, 303, 323, 347, 366, 392, 414, 432, 453, 488, 506, 538, 560, 583; Books, 14, 52, 84, 112, 159, 207, 223, 245, 288, 309, 329, 352, 374, 399, 421, 438, 462, 495, 511, 545, 567, 591; Apparatus and Laboratory Methods, 15, 34, 54, 85, 113, 135, 160, 182, 224, 289, 310, 331, 400, 515; Research under the Government, 103; Men as University Presidents, 206; "Accuracy of the Sacred Scriptures," W. W. KEEN, 543

Scopes, John T., Scholarship Fund, 105, 282; and the Defense of Scientific Men, W. DAVIS, 130

SEARS, P. B., Botanical Criticism, 371

Seelig, M. G., Medicine, J. RUHRAH, 223

SEWALL, H., Experimental Immunization, 293

Sex, Differences, D. A. LAIRD and T. MCCLUMPHA, 292; Changes in Birds, I. M. HEMINGER, 398

Sexes, Identification of, S. SATINA and M. DEMEREC, 225

Shadow Bands, Photography of, H. T. STETSON, 418

Shark, Whale, in the Gulf of Siam, H. M. SMITH, 438

Sherman, H. C., Food Products, H. W. WILEY, 352

SHIPLEY, M., The Science League of America, 221

SHIPLEY, P. G., and C. F. DEGARIS, Digestion in Paramecia, 266

SIDERIS, C. P., Hydrogen Electrode, 331

SIMPSON, G. G., Fauna of Norway, J. Kier, 288

Sinnott, E. W., and L. C. Dunn, Genetics, W. E. CASTLE, 568

SLEATOR, W. W., The Name N in Cos NT, 134

SMITH, H. I., Totem Poles, 134; Mackenzie Park as a Field for Survey, Exploration, Literature and Art, 211; Conservation of Beaver by an Indian, 461

SMITH, H. M., A Whale Shark in the Gulf of Siam, 438

Smithsonian Institution, Endowment of, 487

Smyrna Fig, Rot of, in California, P. D. CALDIS, 161; N. A. BROWN, 288

Snake, Coral, "Harmless," E. R. DUNN, 308; A. H. WRIGHT, 493; E. H. BEHRE, 494

SNELL, W. H., N. O. HOWARD and M. U. LAMB, Moisture Content of Wood and its Decay, 377

Snodgrass, R. E., The Honey Bee, E. F. PHILLIPS, 309
 SNYDER, C. D., Paul to the Thessalonians, 33
 Soil Colloids, M. S. ANDERSON and S. E. MATTSON, 114
 Soils, Suction Force of, J. S. JORRE and H. C. MCLEAN, 548
 Solar Variation and the Weather, C. G. ABBOT, 307, 426
 Sound, Analyzed, A. FORBES, 204
 Spaeth, Reynold Albrecht, A. C. REDFIELD, 363
 Special Articles, 15, 36, 55, 86, 114, 136, 161, 183, 207, 225, 247, 269, 290, 311, 332, 356, 377, 401, 422, 441, 463, 496, 516, 547, 569, 593
 Spider, Luminous, B. BROWN, 182, 329; E. P. HULSE, 329
 Sponges, Luminescence in, Y. K. OKADA, 566
 SPONSLER, O. L., X-Ray Diffraction Patterns from Plant Material, 547
 STANLEY, P. C., New U. S. Weed, 509
 STETSON, H. T., Photography of Shadow Bands, 418
 Stewart Bank in the China Sea, W. M. DAVIS, 401
 Stillman, J. M., Early Chemistry, C. A. BROWNE, 245
 STROMSTEN, F. A., Water Temperatures, 34
 Students, Honors, at Mass. Inst. Tech., 281
 Stutterer's Voice, L. E. TRAVIS, 207
 Sullivan, Louis R., Minutes on Death, 583
 Surface Tension, F. H. MACDOUGALL, 290
 SWANN, W. F. G., Theory of Relativity, 145
 SWINGLE, C. F., Propagation of Apple Varieties, 544
 SWINNERTON, A. C., Post-Glacial Time, 566

TABER, S., Basin Range Structure, 436
 TAYLOR, A. H., and E. O. HULBERT, Short Radio Waves, 183
 TAYLOR, L. S., Magnetic Declination, 516
 Teaching, Freedom of, 7
 Temperature Coefficients in the Interpretation of Biological Processes, L. V. HEILBRUNN, 268
 Temperatures, Water, F. A. STROMSTEN, 34
 THAYER, W. S., Henry M. Thomas, 6
 Thomas, Henry M., W. S. THAYER, 6
 Thyroid Glands, Living, E. UHLENHUTH, 569
 TILTON, J. L., The Definition of Loess, 83
 Time, Post-Glacial, A. C. SWINNERTON, 566
 Tobacco Mosaic, M. MULVANIA, 37; P. OLITSKY, 442
 TOBEY, J. A., Health Activities of the Government, 448
 Totem Poles, H. I. SMITH, 134
 TRAVIS, L. E., The Stutterer's Voice, 207
 Trenching, Channel, in Arid Southwest, K. BRYAN, 338
 Trout Fry, Losses after Distribution, A. P. KNIGHT, 590
 TRUE, R. H., Committee of One Hundred of Amer. Assoc., 559
 Tryparsamide, W. H. BROWN, 350; A. S. LOEVENHART, 587
 Type-culture Collection, American, L. A. ROGERS, 267
 Typhoid Fever Germ, Flagella of the, H. R. ROSEN, 498

UHLENHUTH, E., Living Thyroid Glands, 569
 Undertow, W. CRAIG, 30; I. BRANT, 30; M. P. HITE, 31; W. M. DAVIS, 33
 Units, Campbell's Definitive, L. A. HAZELTINE, 244

University and Educational Notes, 12, 29, 50, 81, 108, 133, 156, 179, 203, 220, 243, 264, 285, 306, 326, 349, 370, 396, 417, 435, 457, 491, 509, 543, 564, 587
 UPHOF, J. C. TH., Abstracting Old Botanical Works and Manuscripts, 545

Vacuum Gauge, Duplex, R. C. HARTSOUGH, 160
 VAN EPPS, M. H., M. E. LARSON and S. T. BROOKS, Reaction of Opalinus to Laboratory Media, 289
 Van Ingen, Gilbert, B. F. HOWELL, 101
 Vitamin, Anti-Rachitic, in the Hen's Eggs and Ultraviolet Light, J. S. HUGHES, R. W. TITUS and J. M. MOORE, 492
 Vitamines, The Nomenclature of, C. FUNK, 157; E. C. VAN LEERSUM, 494
 Voltage, Current, Characteristic Curve, A. E. RUARK, 182
 WALCOTT, C. D., Joseph Henry, 405; John Mason Clarke, 558
 Ward, R. DeC., Climates of the U. S., A. MCADIE, 462
 Water Areas, Utilization of, 430
 Waves, Sea, Size of, T. T. QUIRKE, 108
 Weather Forecasts, Smithsonian, A. MCADIE, 418
 Weed, New, P. C. STANLEY, 509
 Wegener, A., Continents and Oceans, F. A. MELTON, 14
 WELD, L. A., and O. BAUDISCH, Oxides of Iron, 311
 WERKMAN, C. H., Reproduction of Micro-organisms, 115
 WEST, E. S., and G. H. BISHOP, The Photochemistry of Cod Liver Oil, 86
 WHITE, H. L., and F. O. SCHMITT, Kidney Function in *Necturus Maculosus*, 334
 WHITE, W. P., When does Winter come? 286
 WHITING, P. W., and A. R. WHITING, Diploid Males in Hymenoptera, 437
 WHITMORE, F. C., Amer. Chem. Soc., 226
 Wild Life Preservation, J. GRINNELL, 437
 WILEY, H. W., Asa Gray, 222; Food Products, H. C. Sherman, 352; Wheat Flour, C. H. Bailey, 511
 WILSON, E. B., Marine Biological Laboratory, 273
 Wilson, E. B., The Cell in Development and Heredity, E. G. CONKLIN, 52
 WINSLOW, C.-E. A., Public Health, 335
 Winter, When does it come? W. P. WHITE, 286
 Wisconsin State Park, A. R. CAHN, 559
 Wood, Moisture Content and its Decay, W. H. SNELL, N. O. HOWARD and M. U. LAMB, 377
 WOODRING, W. P., *Arca patricia* Sowerby, 518
 WOODS, A. F., Evolution and the Bible, 159
 Woodworth, Jay Backus, 150; R. A. DALY, C. PALACHE and K. F. MATHER, 450
 WRIGHT, A. H., The "Harmless" Coral Snake, 493
 Wright, C. A., and A. F. Puchstein, Telephone Communication, G. LUSK, 329
 WYCKOFF, R. W. G., Structure of High Quartz, 496
 X-Ray Diffraction Patterns, O. L. SPONSLER, 547
 X-Rays, Soft, G. K. ROLLEFSON and E. J. POTI, 497
 Yale, University, Sterling Research Fellowships, 582
 Yeast, Growth-promoting Principle of, P. A. LEVENE and B. J. C. VAN DER HOEVEN, 594

D
8,
9,
d